



Pergamon

Child Abuse & Neglect 30 (2006) 257–269

Child Abuse
& Neglect

The impact of childhood sexual abuse in anorexia nervosa[☆]

Jacqueline C. Carter^{a,b,*}, Carmen Bewell^{a,c}, Elizabeth Blackmore^a,
D. Blake Woodside^{a,b}

^a Department of Psychiatry, Toronto General Hospital, University Health Network, Toronto, Ont., Canada

^b Department of Psychiatry, University of Toronto, Toronto, Ont., Canada

^c Department of Psychology, York University, Toronto, Ont., Canada

Received 29 May 2005; received in revised form 31 August 2005; accepted 24 September 2005

Abstract

Objective: The aim of this study was to examine the impact of childhood sexual abuse (CSA) on clinical characteristics and premature termination of treatment in anorexia nervosa (AN).

Method: The participants were 77 consecutive patients with AN admitted to an inpatient eating disorders unit. The patients were assessed in terms of eating disorder symptoms, general psychopathology, and CSA history at admission to hospital.

Results: Thirty-seven patients (48%) reported a history of CSA before the onset of the eating disorder. Individuals with a history of CSA reported significantly greater psychiatric comorbidity, including higher levels of depression and anxiety, lower self-esteem, more interpersonal problems, and more severe obsessive-compulsive symptoms. Patients with the binge-purge subtype of AN (AN-BP) were significantly more likely to report a history of CSA prior to the onset of the eating disorder as compared with patients with the restricting subtype (AN-R) of the illness (65% of the AN-BP patients vs. 37% of the AN-R patients; $p < .02$). Contrary to our predictions, abused patients were not significantly more likely to dropout of treatment overall. However, patients of the binge-purge subtype (AN-BP) with a history of CSA were significantly more likely to terminate treatment prematurely as compared with the other patients.

[☆] This research was funded by the Canadian Institutes of Health Research (MOP-44041).

* Corresponding author address: Department of Psychiatry, Toronto General Hospital, University Health Network, 200 Elizabeth Street, Eaton Wing North 8-231, Toronto, Ont., Canada M5G 2C4.

Conclusions: Consistent with previous findings, the present results indicate that the prevalence of CSA is high among individuals seeking inpatient treatment for AN. A history of CSA was associated with greater psychiatric disturbance overall and a higher rate of dropout for patients of the binge-purge subtype.

© 2006 Elsevier Ltd. All rights reserved.

Keywords: Anorexia nervosa; Sexual abuse; Treatment dropout

Introduction

Several studies have shown that a significant proportion of individuals with eating disorders report a history of childhood sexual abuse (CSA). In addition, non-eating disordered individuals with a history of CSA typically share certain features with eating disordered individuals including intense feelings of shame, low self-esteem, and body image disparagement. Consequently, several researchers have hypothesized that sexual abuse may be a risk factor for the development of eating disorders (Oppenheimer, Howells, Palmer, & Chaloner, 1985). On balance, the findings of studies examining this hypothesis have shown that sexual abuse is not a *specific* risk factor for eating disorders but is associated with an increased risk of psychopathology *in general* (Steiger & Zanko, 1990; Thompson & Wonderlich, 2004; Welch & Fairburn, 1994; Wonderlich, Brewerton, Jovic, Dansky, & Abbott, 1997).

Reviews of the research on the association between CSA and eating disorders have noted variation across studies in the estimated prevalence rate of sexual abuse in both eating disorder and control populations (Thompson & Wonderlich, 2004). Such inconsistencies may reflect differences in the samples studied (e.g., clinic vs. community samples), methodological differences, as well as differences in the definitions used for sexual abuse (Wyatt & Peters, 1986a, 1986b). The use of face-to-face interviews has been found to be associated with higher prevalence estimates than self-report questionnaires (Wyatt & Peters, 1986a). Broader definitions of sexual abuse (e.g., abuse with or without physical contact) also produce higher prevalence rates than more restrictive definitions (Wyatt & Peters, 1986b).

There is some evidence that a history of CSA is associated with greater psychiatric disturbance in individuals with eating disorders. Rorty, Yager, and Rossotto (1994) found that CSA was associated with personality pathology in a community sample of people with bulimia nervosa. Two studies found that a history of sexual abuse predicted the presence of self-injurious behavior in patients with eating disorders (Favaro & Santonastaso, 2000; Nagata, Kiriike, Iketani, Kawarada, & Tanaka, 1999). Anderson, LaPorte, Brandt, and Crawford (1997) found that eating disorder patients with a history of sexual abuse reported higher levels of depression and anxiety as compared with patients without an abuse history. Two studies found an association between a sexual abuse history and obsessive-compulsive symptoms, particularly ritualistic cleaning behavior (Lockwood, Lawson, & Waller, 2005).

With two exceptions, studies to date have found no evidence that sexual abuse is associated with more severe eating disorder psychopathology in patients with eating disorders. A study by Fullerton, Wonderlich, and Gosnell (1995) found that sexual abuse was associated with higher scores on a self-report measure of eating disorder attitudes and behaviors. Another study by Waller (1992a, 1992b) showed that a history of sexual abuse was associated with more frequent episodes of binge eating and vomiting. Several studies have shown that CSA is associated with the presence of binge eating and purging behaviors in patients with eating disorders (Bulik, Sullivan, Fear, & Joyce, 1997; Deep, Lilenfeld, Plotnicov, Pollice, & Kaye, 1999; Oliosi & Dalle Grave, 2003; Waller, Halek, & Crisp, 1993). Studies of personality differences

between restricting anorexia nervosa (AN-R) patients and those who binge-eat or purge (AN-BP) have found that AN-R is associated with lower novelty seeking, higher harm avoidance, and more rigid and obsessional behavior as compared with patients with AN-BP (Halmi, Kleifield, Braun, & Sunday, 1999; Kleifield, Sunday, Hurt, & Halmi, 1994). Compared with AN-R patients, those who binge-eat or purge have been found to experience more lability of mood, to be more impulsive, and are more likely to have substance abuse problems (DaCosta & Halmi, 1992). A number of studies have found the presence of bulimic symptoms in AN to be associated with a poorer treatment outcome (e.g., Fichter & Quadflieg, 1999; Halmi et al., 1979; Martin, 1985; Theander, 1985). Given these findings, it is possible that the association between CSA and the eating disorder may be different in AN-R versus AN-BP.

To our knowledge, only two studies have examined whether a history of sexual abuse affects response to treatment for an eating disorder. Anderson et al. (1997) found that bulimia nervosa patients with a history of sexual abuse demonstrated lower rates of abstinence from binge eating and purging behaviors at the end of treatment as compared with patients without a history of abuse. In addition, a significantly greater proportion of abused patients relapsed during the first three months after completing treatment. In a follow-up study of patients who had received inpatient treatment for an eating disorder, Luadzers (1998) found that a sexual abuse history reduced the likelihood of recovery from the eating disorder. However, this study was limited by the use of a self-report questionnaire to assess sexual abuse history and eating disorder status as well as a low (52%) response rate.

The aim of the present study was to examine the association between CSA and clinical presentation as well as premature termination of treatment in anorexia nervosa (AN-R and AN-BP). It was hypothesized that a history of CSA would be associated with: (1) more severe eating disorder symptoms; (2) more severe general psychopathology; (3) having the binge-purge subtype of AN; and (4) an increased rate of premature termination of treatment.

Method

Participants

The participants were recruited from among 113 consecutive female patients who met DSM-IV criteria for anorexia nervosa (AN) and were admitted to the Inpatient Eating Disorders Unit at the Toronto General Hospital between 2000 and 2005. This program has been described in detail elsewhere (Olmsted, Woodside, Carter, et al., in press). Briefly, it is an intensive group therapy program that is primarily directed at the normalization of eating and the restoration of body weight to a body mass index (BMI; kg/m²) of 20. All admissions are voluntary, and patients may choose to leave the program at any time. Patients may also be discharged by the program staff. This is typically due to lack of progress (e.g., failure to gain weight) or repeated violation of program norms (e.g., purging on the unit). Both types of premature termination were included in the analysis of treatment dropout in this study. Eighteen of the 113 patients chose not to participate in the current study yielding a participation rate of 84% or 95 participants.

Assessment protocol and measures

The 95 participants were assessed at admission to the inpatient program. Those who completed the program were re-assessed at the time of discharge. Each assessment lasted approximately 90 min. The

study was approved by the Research Ethics Board of the hospital. Participants were provided with a complete description of the study, and written informed consent was obtained.

Assessment of eating disorder psychopathology. Key eating disorder symptoms were assessed using the diagnostic items of the Eating Disorder Examination (EDE; Fairburn & Cooper, 1993). Measures derived from this interview included the frequency of binge eating, self-induced vomiting, laxative and diuretic misuse, and intense exercise; degree of concern about shape and weight; and dietary restriction. The EDE has been demonstrated to be a reliable and valid instrument (Cooper, Cooper, & Fairburn, 1989; Cooper & Fairburn, 1987; Rizvi, Peterson, Crow, & Agras, 2000; Rosen, Vara, Wendt, & Leitenberg, 1990; Wilson & Smith, 1989). In addition, weight and height were measured in order to calculate body mass index.

Other eating disorder features were measured using the fourth edition of the self-report version of the EDE (EDE-Q4; Fairburn & Beglin, 1994). Its items are based closely on the corresponding items from the EDE. The EDE-Q produces four subscale scores: Shape Concern, Weight Concern, Eating Concern, and Restraint, as well as a Global Score. It has been shown to have good internal consistency and test-retest reliability (Luce & Crowther, 1999).

Assessment of general psychopathology. The presence and degree of depressive symptoms as consistent with the DSM-IV criteria were measured using the Beck Depression Inventory II (BDI-II; Beck, Steer, & Brown, 1996). The BDI-II has been well-validated (Beck et al., 1996). Global self-esteem was measured using the Rosenberg Self-esteem Scale (RSES; Rosenberg, 1965). Scores on this scale have been shown to be significantly correlated with measures of depression and neuroticism (Rosenberg, 1965). This measure has been widely used in clinical research and has been shown to be sensitive to change in studies on eating disorders (Fairburn et al., 1991). The Padua Inventory (PI; Van Oppen, Hoekstra, & Emmelkamp, 1995) was used to measure obsessive-compulsive symptoms including washing, checking, rumination, precision, and impulses. General psychiatric disturbance was measured using the Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983). The BSI was designed to measure nine primary symptom dimensions: Somatization, Obsessive-compulsive Symptoms, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoid Ideation and Psychoticism (Derogatis, 1993). In addition, there is a summary score that indicates global symptom severity, the Global Severity Index (GSI). Its reliability and validity have been well documented (e.g., Derogatis & Melisaratos, 1983).

Interpersonal functioning was assessed using the Inventory of Interpersonal Problems (IIP; Horowitz, Rosenberg, & Baer, 1988). The IIP was designed to measure distress arising from interpersonal sources. It is comprised of six subscales identified through principal components factor analysis: Assertiveness, Sociability, Intimacy, Submissiveness, Responsibility and Control. The factors have good internal consistency, and test-retest reliability (Horowitz et al., 1988).

Definition and assessment of childhood sexual abuse (CSA). The definition of CSA used for this study was any unwanted sexual experience involving physical contact including sexual touching and sexual intercourse that occurred before age 18 and prior to the onset of the eating disorder. Since we were interested in studying the impact of CSA on AN, we decided to exclude cases where the sexual abuse occurred after the development of the eating disorder. The investigator-based interview developed by Welch and Fairburn (1994) was used to assess sexual abuse in the present study. This interview includes an introduction that explains the rationale for addressing the topic. It was administered in the context of a broader interview so that rapport could be established before the issue of sexual abuse was introduced.

Using neutral and unambiguous terms, patients were asked if they had ever experienced any unwanted sexual contact. If the patient reported such experiences, she was asked about the nature of the experience as well as information about the relationship of the abuser to her, the age at which the abuse happened, and the number of times it occurred.

Statistical analyses. Chi-square tests and independent samples *t* tests were used to examine differences in terms of baseline measures of specific and general psychopathology between AN patients with and without a history of CSA. A Cox proportional hazards regression analysis (Cox & Oakes, 1984) was used to model the rate and timing of premature termination of inpatient treatment. All analyses were completed using SPSS version 12.0.1.

Results

Participant characteristics

At admission to the inpatient unit, the 95 participants had a mean age of 25.5 years ($SD=7.8$) and a mean BMI of 15.0 ($SD=1.6$). The mean duration of illness was 6.7 years ($SD=7.2$ years), and the mean age of onset of AN was 18.8 years ($SD=5.4$). The average length of stay in treatment was 12.4 weeks ($SD=5.8$), and the mean weight gain was 11.1 kg ($SD=6.2$). Eighty-one percent were single, 16% were married or living in common-law relationships, and 3% were separated or divorced. The majority were students (49%), while 14% were unemployed, and 37% were employed. With regard to racial background, 93% were Caucasian, 3% were Asian, and the remaining 4% were either African Canadian or East Indian. Forty-one participants (43%) met DSM-IV criteria for the binge-eating/purging subtype of AN according to the EDE interview (AN-BP). The remaining 54 participants (57%) had the restricting form of the illness (AN-R).

Prevalence of childhood sexual abuse (CSA)

Of the 95 participants, six patients were abused *after age 18* and therefore did not meet the study definition of CSA. We decided to exclude these individuals from the analyses comparing sexually abused and non-sexually abused patients in order to control for the potential confounding effects of their history of sexual abuse after age 18. Twelve additional patients were excluded from the analyses looking at the impact of sexual abuse on the eating disorder because they were sexually abused *after* the onset of their eating disorder. The following results are concerned with the remaining 77 participants.

Thirty-seven (48.1%) of the 77 participants reported a history of CSA as defined above. Of these individuals, 31 (84%) experienced more than one episode of sexual abuse (usually by the same perpetrator), while 6 (16%) reported only one episode of sexual abuse. The average age at which the abuse first occurred was 10.1 years ($SD=4.8$). Of all the reported cases of CSA, 19 (51.4%) were sexually abused by a family/personal acquaintance, 6 (16.2%) by a boyfriend, 7 (18.9%) by an immediate family member, 2 (5.4%) by a stranger, and 3 (8.1%) fell under the “other” category (e.g., teacher, doctor).

Table 1

Characteristics of AN patients with and without a history of childhood sexual abuse (CSA) at admission to inpatient treatment

Scale	No history of sexual abuse (<i>n</i> = 40) [mean (<i>SD</i>)]	History of sexual abuse (<i>n</i> = 37) [mean (<i>SD</i>)]
Psychological disturbance		
Beck Depression Inventory-II (BDI)*	29.7 (11.0)	38.2 (13.5)
Brief Symptom Inventory (BSI)*	1.8 (.8)	2.6 (.8)
Rosenberg Self-esteem Scale (RSES)*	22.5 (6.5)	18.6 (5.2)
Inventory of Interpersonal Problems (IIP)*	53.4 (17.1)	65.2 (14.4)
Padua Inventory total score (PI)*	35.4 (29.2)	60.4 (37.1)
Eating disorder symptomatology		
EDE-Q global score*	3.8 (1.5)	4.6 (1.1)

* Significant difference at $p \leq .01$.

Childhood sexual abuse and clinical characteristics

As shown in Table 1, compared with those who did not report a history of CSA, patients with a sexual abuse history had greater psychiatric comorbidity, including higher levels of depression ($t = 2.74$, $p = .008$) and anxiety ($t = 4.12$, $p = .000$), lower self-esteem ($t = 2.79$, $p = .007$), more interpersonal problems ($t = 3.13$, $p = .003$), and more severe obsessive-compulsive symptoms ($t = 3.15$, $p = .002$). In addition, AN patients with a sexual abuse history had significantly higher mean EDE-Q Global scores ($t = 2.66$, $p = .010$), indicating more severe eating disorder psychopathology.

Childhood sexual abuse and premature termination of treatment

Figure 1 presents the survival curve for the 77 patients. Forty-nine patients (64%) completed the program and achieved a BMI of 20, and 28 patients (36%) experienced a premature termination of treatment before achieving a BMI of 20. Contrary to our predictions, the mean time to discharge for those

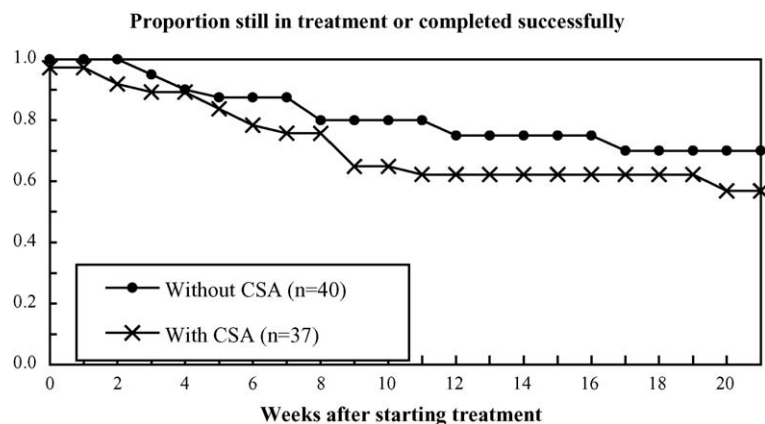


Figure 1. The Life Table survival function describing the risk of premature termination of inpatient treatment for 77 patients with anorexia nervosa, with and without a history of childhood sexual abuse (CSA).

with a history of CSA was not significantly different from that for patients without a history of CSA (CSA mean = 12.0 vs. no CSA mean = 13.3, mean difference = 1.3, $p = .30$). The proportions of patients dropping out prematurely also did not differ between the group with a history of CSA (43%) and the group without a history of CSA (57%) ($p = .22$). There was also no significant difference in attrition rates between those who experienced a single episode of abuse versus those who experience multiple episodes of abuse ($p = .337$).

In addition, there was no statistically significant difference between the groups (with CSA vs. without CSA patients) in terms of mean discharge BMI (with CSA mean = 18.99 vs. without CSA mean = 19.24, $p = .57$).

Impact of AN subtype

There was a significant relationship between AN subtype and CSA history ($p = .018$). More patients with a history of CSA were of the binge/purge subtype of AN (54%), as compared with the restricting subtype of AN (46%). Put another way, the majority (65%) of AN-BP patients had a history of CSA, while only a minority (37%) of AN-R patients reported such experiences.

Figure 2 presents the survival curve for the 77 patients according to AN subtype and abuse history. It can be seen that the survival curves for the AN-R with and without CSA are virtually identical and that the curve for AN-BP without CSA is very similar to these curves as well. However, the survival curve for the AN-BP with CSA group indicates a different pattern. This subgroup of patients terminated earlier and at a faster rate. A Cox regression was then run with group category (AN Subtype \times Abuse Category) serving as the predictor and time until dropout as the outcome (dependent) variable. The overall model was statistically significant ($p = .05$) but explained only 3.1% of the variance in dropout status ($R^2 = .031$). We then tested whether the AN-R without CSA, AN-R with CSA, and AN-BP without CSA groups were

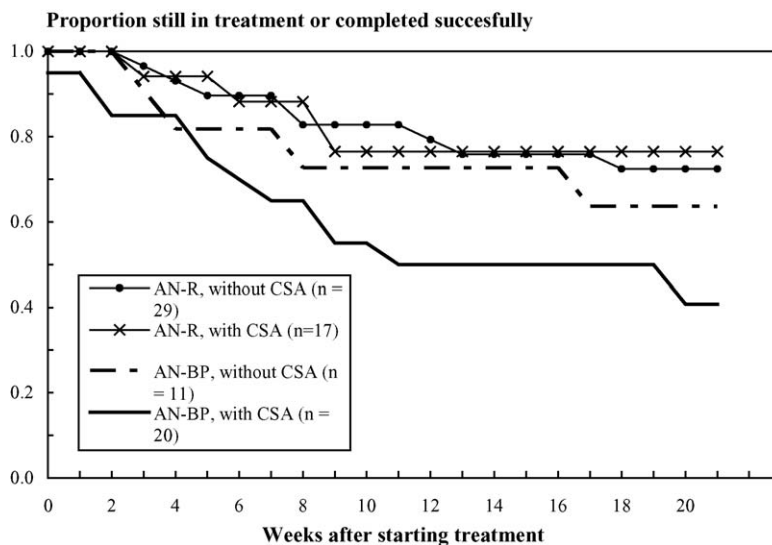


Figure 2. The Life Table survival function describing the risk of premature termination of inpatient treatment for 77 patients with AN-R or AN-BP, with and without a history of childhood sexual abuse (CSA).

significantly different from the AN-BP with CSA group, which served as the reference group. A significant effect of group status was found when both the AN-R without CSA ($B = -1.040$, Wald Statistic = 5.138, $p = .02$) and the AN-R with CSA ($B = -1.176$, Wald Statistic = 4.134, $p = .042$) groups were compared with the AN-BP with CSA group, indicating that the AN-BP with CSA group terminated earlier and at a faster rate. There was no significant difference between the AN-BP without CSA and the AN-BP with CSA groups ($B = -.605$, Wald Statistic = 1.09, $p = .30$). In addition, no significant differences were found among the groups in terms of mean discharge BMI ($F(3, 73) = .480$, $p = .70$). A χ^2 analysis of group category by treatment outcome was marginally significant ($p = .07$), and identified the proportions of AN-BP with CSA as being particularly higher than the expected values in the unsuccessful treatment cell (observed value = 12, expected value = 7.3) and lower than the expected values in the successful treatment cell (observed value = 8, expected value = 12.7).

Discussion

The present findings indicate that the prevalence of CSA among inpatients with AN is high; 48% of the sample reported a history of CSA. This rate is comparable to that found in previous studies that employed a similar methodology (e.g., Tobin & Griffing, 1996). Given that this was an inpatient sample, the findings may not generalize to individuals with AN in the community or those seen in primary care. For example, the prevalence of abuse may be higher and the level of psychiatric disturbance may be greater in an inpatient sample.

Patients with a history of CSA in the present study reported greater psychiatric disturbance, including higher levels of depression and anxiety, lower self-esteem, greater interpersonal problems, and more severe obsessive-compulsive symptoms as compared with patients who did not have a history of CSA. They also reported a significantly more severe eating disorder psychopathology. Contrary to our predictions, there was no overall effect of CSA on the rate or timing of premature termination of treatment. There was also no overall difference between sexually abused and non-sexually abused patients in terms of mean discharge BMI. However, patients with a history of CSA were significantly more likely to be of the binge-purge subtype of AN, and AN-BP patients with a history of abuse terminated earlier and at a faster rate than AN-R patients with or without abuse histories. The survival curve also suggested that AN-BP patients with a history of CSA fare worse than their AN-BP counterparts with no history of abuse. Although this difference was not statistically significant, this comparison may have been limited by low statistical power due to the small sample size of the AN-BP without CSA group ($n = 11$).

This study corroborates previous research demonstrating that patients with AN who reported a history of sexual abuse were more likely to engage in purging behaviors (i.e., self-induced vomiting or laxative misuse) as compared with patients without a history of sexual abuse (Waller et al., 1993). One possible explanation is that the effects of CSA may interact with personality characteristics present in AN patients of the binge-purge subtype versus the restricting subtype. For example, the tendency of the AN-BP subgroup to exhibit greater mood lability and more impulsive behavior may be intensified by the aftermath of CSA. One consequence of CSA appears to be insufficiently developed affect regulation skills (Briere, 2002). Since purging behaviors may help to modulate negative internal states, individuals with a history of CSA who develop an eating disorder may be more likely to develop purging behaviors possibly as way of coping with the negative emotional effects of the abuse.

From a developmental perspective, CSA may interfere with the development of self-regulation and social functioning (Spaccarelli, 1994). Cognitive theorists (e.g., Foa, Steketee, & Rothbaum, 1989) have argued that traumatic events tend to violate previously held beliefs about the self (e.g., self worth) and the world (e.g., safety expectations). Consistent with this theory, abused patients in this study reported higher levels of depression, interpersonal distrust, and feelings of ineffectiveness. Peterson and Seligman (1983) suggested that the uncontrollability of victimization experiences violates a human need for perceived control over negative or dangerous events. A need for self-control is postulated to be a central maintaining factor in AN (Fairburn, Shafran, & Cooper, 1999), and this need may be heightened among individuals with a sexual abuse history. In particular, the eating disorder symptoms may help reduce the re-experiencing symptoms characteristic of post-traumatic stress disorder (PTSD), and this may be particularly true of patients of the binge-purge subtype.

One of the strengths of the present study was the use of an investigator-based interview to assess sexual abuse history. It was administered in the context of a broader interview to allow rapport to be established and to facilitate the process of disclosure. In addition, since the interview was investigator-based, it allowed the assessor to determine whether or not the specific definition of abuse employed in this study was met. Another strength of the study was that the participation rate was high (84%).

The study also had certain limitations. First, we did not collect detailed information about the specific nature of the abuse (e.g., whether there was attempted or completed intercourse). A previous study found evidence that the presence of attempted or completed intercourse versus other forms of abuse was associated with an increased risk of psychopathology (Bulik, Prescott, & Kendler, 2001). Second, the presence or absence of personality disorder and self-harm behavior was not assessed in the present study. Previous studies suggest that personality disturbance and self-injurious behavior may be important clinical variables distinguishing sexually abused and non-sexually abused patients (Favaro & Santonastaso, 2000; Nagata et al., 1999).

This study has a number of potentially important clinical implications. First, AN patients of the binge-purge subtype with a history of CSA may require more intensive treatment for their eating disorder as compared to patients without a sexual abuse history. Second, these patients also may require treatment aimed specifically at addressing the effects of sexual abuse. It is not clear whether treatment for the abuse should take place before, after or concurrently with acute treatment for the eating disorder. Third, the findings point to the importance of developing strategies to address to increased risk of attrition in this subgroup. Finally, since CSA is so common in this population and often goes undisclosed, it may be important to screen for a history of sexual abuse on a routine basis.

Acknowledgements

The authors are grateful to Dr. Steve Wonderlich for comments on an earlier version of the manuscript and Dr. Ross Crosby for statistical advice.

References

- Anderson, K. P., LaPorte, D. J., Brandt, H., & Crawford, S. (1997). Sexual abuse and bulimia: Response to inpatient treatment and preliminary outcome. *Journal of Psychiatric Research*, *31*, 621–633.

- Beck, A. T., Steer, R. A., & Brown, G. K. (1996). *Beck Depression Inventory—Manual* (2nd ed.). New York, NY: Guilford Press.
- Brewerton, T. D. (2004). Eating disorders, victimization, and comorbidity: Principles of treatment. In T. D. Brewerton (Ed.), *Clinical handbook of eating disorders* (pp. 509–545). New York: Marcel Dekker, Inc.
- Briere, J. (2002). Treating adult survivors of severe childhood abuse and neglect: Further development of an integrative model. In J. E. B. Myers, L. Berliner, J. Briere, C. T. Hendrix, T. Reid, & C. Jenny (Eds.), *The APSAC handbook on child maltreatment* (2nd ed., pp. 175–203). Newbury Park, CA: Sage Publications.
- Bulik, C. M., Prescott, C. A., & Kendler, K. S. (2001). Features of childhood sexual abuse and the development of psychiatric and substance use disorders. *British Journal of Psychiatry*, *179*, 444–449.
- Bulik, C. M., Sullivan, P. F., Fear, J. L., & Joyce, P. R. (1997). Eating disorders and antecedent anxiety disorders: A controlled study. *Acta Psychiatrica Scandinavica*, *96*, 101–107.
- Cooper, Z., Cooper, P. J., & Fairburn, C. G. (1989). The validity of the Eating Disorder Examination and its subscales. *British Journal of Psychiatry*, *154*, 807–812.
- Cooper, Z., & Fairburn, C. G. (1987). The Eating Disorder Examination: A semi-structured interview for the assessment of the specific psychopathology of eating disorders. *International Journal of Eating Disorders*, *6*, 1–8.
- Cox, D. R., & Oakes, D. (1984). *The analysis of survival data*. London: Chapman and Hall.
- DaCosta, M., & Halmi, K. (1992). Classification of anorexia nervosa: Question of subtypes. *International Journal of Eating Disorders*, *11*, 305–313.
- Deep, A. L., Lilenfeld, L. R., Plotnicov, K., Pollice, C., & Kaye, W. H. (1999). Sexual abuse in eating disorder subtypes and control women: The role of comorbid substance dependence in bulimia nervosa. *International Journal of Eating Disorders*, *25*, 1–10.
- Derogatis, L. R. (1993). *Brief Symptom Inventory: Administration, scoring, and procedures manual*. Minneapolis: National Computer Systems, Inc.
- Derogatis, L. R., & Melisaratos, N. (1983). The Brief Symptom Inventory: An introductory report. *Psychological Medicine*, *13*, 595–605.
- Fairburn, C. G., & Beglin, S. J. (1994). Assessment of eating disorders: Interview or self report questionnaire? *International Journal of Eating Disorders*, *16*, 363–370.
- Fairburn, C. G., & Cooper, Z. (1993). The Eating Disorder Examination. In C. G. Fairburn & G. T. Wilson (Eds.), *Binge eating: Nature, assessment and treatment* (12th ed., pp. 317–360). New York: Guilford Press.
- Fairburn, C. G., Jones, R., Peveler, R. C., Carr, S. J., Solomon, R. A., O'Connor, M. E., Burton, J., & Hope, R. A. (1991). Three psychological treatments for bulimia nervosa: A comparative trial. *Archives of General Psychiatry*, *48*, 463–469.
- Fairburn, C. G., Shafran, R., & Cooper, Z. (1999). A cognitive-behavioral theory of anorexia nervosa. *Behaviour Research and Therapy*, *37*, 1–13.
- Favaro, A., & Santonastaso, P. (2000). Self-injurious behavior in anorexia nervosa. *The Journal of Nervous and Mental Disease*, *188*, 537–542.
- Fichter, M. M., & Quadflieg, N. (1999). Six-year course and outcome of anorexia nervosa. *International Journal of Eating Disorders*, *26*, 359–385.
- Foa, E. B., Steketee, G., & Rothbaum, B. O. (1989). Behavioral/cognitive conceptualizations of post-traumatic stress disorder. *Behavior Therapy*, *20*, 155–176.
- Folsom, V., Krahn, D., Nairn, K., Gold, L., Demitrack, M. A., & Silk, K. R. (1993). The impact of sexual and physical abuse on eating disordered and psychiatric symptoms: A comparison of eating disordered and psychiatric inpatients. *International Journal of Eating Disorders*, *13*, 249–257.
- Fullerton, D. T., Wonderlich, S. A., & Gosnell, B. A. (1995). *International Journal of Eating Disorders*, *17*, 243–249.
- Halmi, K. A., Goldberg, S. C., Casper, R. C., Eckert, E. D., & Davis, J. M. (1979). Pretreatment predictors of outcome in anorexia nervosa. *British Journal of Psychiatry*, *134*, 71–78.
- Halmi, K., Kleinfeld, E. I., Braun, D. L., & Sunday, S. R. (1999). Personality correlates of eating disorder subtypes. In C. R. Cloninger (Ed.), *Personality and psychopathology* (pp. 67–82). Washington, DC: American Psychiatric Association.
- Horowitz, L. M., Rosenberg, S. E., & Baer, B. A. (1988). Inventory of Interpersonal Problems: Psychometric properties and clinical applications. *Journal of Consulting and Clinical Psychology*, *56*, 885–892.
- Kleinfeld, E. I., Sunday, S. R., Hurt, S., & Halmi, K. (1994). The tridimensional personality questionnaire: An exploration of personality traits in eating disorders. *Journal of Psychiatric Research*, *28*, 413–423.

- Lockwood, R., Lawson, R., & Waller, G. (2005). Compulsive features in the eating disorders: A role for trauma? *Journal of Nervous and Mental Disease, 192*, 247–249.
- Luadzers, D. (1998). Sexual abuse history and treatment outcome of eating disorders. *Journal of Sex Education and Therapy, 23*, 312–317.
- Luce, K. H., & Crowther, J. H. (1999). The reliability of the Eating Disorder Examination—Self-Report Questionnaire Version (EDE-Q). *International Journal of Eating Disorders, 25*, 349–351.
- Martin, F. E. (1985). The treatment and outcome of anorexia nervosa in adolescents: A prospective study and five year follow-up. *Journal of Psychiatry Research, 19*, 509–514.
- Nagata, T., Kiriike, N., Iketani, T., Kawarada, Y., & Tanaka, H. (1999). History of childhood sexual or physical abuse in Japanese patients with eating disorders: Relationship with dissociation and impulsive behaviors. *Psychological Medicine, 29*, 935–942.
- Oliosi, M., & Dalle Grave, R. (2003). A comparison of clinical and psychological features in subgroups of patients with anorexia nervosa. *European Eating Disorders Review, 11*, 306–314.
- Olmsted, M. P., Woodside, D. B., Carter, J. C., et al. (in press). Intensive treatments for eating disorders. *Treatment of DSM-IV TR Psychiatric Disorders: New revised Edition*. APPI.
- Oppenheimer, R., Howells, K., Palmer, R. L., & Chaloner, D. A. (1985). Adverse sexual experience in childhood and clinical eating disorders: A preliminary description. *Journal of Psychiatric Research, 19*, 357–361.
- Peterson, C., & Seligman, M. E. (1983). Learned helplessness and victimization. *Journal of Social Issues, 39*, 103–116.
- Rizvi, S. L., Peterson, C. B., Crow, S. J., & Agras, W. S. (2000). Test-retest reliability of the Eating Disorder Examination. *International Journal of Eating Disorders, 28*, 311–316.
- Rorty, M., Yager, J., & Rossotto, E. (1994). Childhood sexual, physical, and psychological abuse and their relationship to comorbid psychopathology in bulimia nervosa. *International Journal of Eating Disorders, 16*, 317–334.
- Rosen, J. C., Vara, L., Wendt, S., & Leitenberg, H. (1990). Validity studies of the Eating Disorder Examination. *International Journal of Eating Disorders, 9*, 519–528.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton: Princeton University Press.
- Spaccarelli, S. (1994). Stress, appraisal, and coping in child sexual abuse: A theoretical and empirical review. *Psychological Bulletin, 116*, 340–362.
- Steiger, H., & Zanko, M. (1990). Sexual traumata among eating-disordered, psychiatric, and normal female groups: Comparison of prevalences and defense styles. *Journal of Interpersonal Violence, 5*, 74–86.
- Theander, S. (1985). Outcome and prognosis in anorexia nervosa: Some results of previous investigations, compared with those of a Swedish long-term study. *Journal of Psychiatry Research, 19*, 493–508.
- Thompson, K. M., & Wonderlich, S. A. (2004). Child sexual abuse and eating disorders. In J. K. Thompson (Ed.), *Handbook of eating disorders and obesity* (pp. 679–694). Hoboken, NJ: John Wiley & Sons.
- Tobin, D. L., & Griffing, A. S. (1996). Coping, sexual abuse, and compensatory behavior. *International Journal of Eating Disorders, 20*, 143–148.
- Van Oppen, P., Hoekstra, R. J., & Emmelkamp, P. M. G. (1995). The structure of obsessive-compulsive symptoms. *Behaviour Research and Therapy, 33*, 15–23.
- Waller, G. (1992a). Sexual abuse and bulimic symptoms in eating disorders: Do family interaction and self-esteem explain the links? *International Journal of Eating Disorders, 12*, 235–240.
- Waller, G. (1992b). Sexual abuse and the severity of bulimic symptoms. *British Journal of Psychiatry, 161*, 90–93.
- Waller, G., Halek, C., & Crisp, A. H. (1993). Sexual abuse as a factor in anorexia nervosa: Evidence from two separate case series. *Journal of Psychosomatic Research, 37*, 873–879.
- Welch, S. L., & Fairburn, C. G. (1994). Sexual abuse and bulimia nervosa: Three integrated case control comparisons. *American Journal of Psychiatry, 151*, 402–407.
- Wilson, G. T., & Smith, D. (1989). Assessment of bulimia nervosa: An evaluation of the Eating Disorder Examination. *International Journal of Eating Disorders, 8*, 173–179.
- Wonderlich, S. A., Brewerton, T. D., Jolic, Z., Dansky, B. S., & Abbott, D. W. (1997). Relationship of childhood sexual abuse and eating disorders. *Journal of the American Academy of Child and Adolescent Psychiatry, 36*, 1107–1115.
- Wyatt, G. E., & Peters, S. D. (1986a). Issues in the definition of child sexual abuse in prevalence research. *Child Abuse & Neglect, 10*, 231–240.

Wyatt, G. E., & Peters, S. D. (1986b). Methodological considerations in research on the prevalence of child sexual abuse. *Child Abuse & Neglect*, 10, 241–251.

Résumé

Objectif : Le but de cette étude était d'examiner l'impact de l'agression sexuelle infantile (AS) sur les caractéristiques cliniques et l'abandon prématuré du traitement dans l'anorexie mentale (AM).

Méthode : Les participantes étaient 77 patientes anorexiques (AM) admises dans une unité d'hospitalisation spécialisée dans les troubles des conduites alimentaires. Les patientes ont été évaluées en terme de symptômes de troubles alimentaires, de psychopathologie et de passé d'AS lors de l'admission à l'hôpital.

Résultats : Trente-sept patientes (48%) ont rapporté un passé d'AS avant la survenue du trouble alimentaire. Les cas avec passé d'AS avaient une comorbidité psychiatrique significativement plus importante, comportant des niveaux plus élevés de dépression et d'anxiété, une estime de soi plus basse, davantage de problèmes relationnels, et des symptômes obsessionnels et compulsifs plus sévères. Les patientes du sous-groupe "boulimie-laxatifs" (AM-BL) étaient significativement plus susceptibles de raconter un passé d'AS antérieur au début du trouble alimentaire que les patientes du sous-groupe "restrictif" (AM-R) de la maladie, (65% des malades AM-BL versus 37% des malades AM-R; $p < .02$). Contrairement à ce que nous prévoyions, les patientes agressées n'étaient pas significativement plus sujettes à un abandon du traitement. Cependant, les patientes du sous-type "boulimie-laxatifs" (AM-BL) avec passé d'AS étaient significativement plus susceptibles d'arrêter prématurément leur traitement que les autres patientes.

Conclusion : En accord avec des constatations antérieures, les résultats ci-dessus indiquent que la prévalence d'AS est élevée dans les cas ayant besoin d'une hospitalisation pour AM. Un passé d'AS est associé avec une plus grande perturbation psychiatrique globale et un taux plus élevé d'abandon de traitement chez les patientes du sous-groupe boulimie-laxatifs.

Resumen

Objetivo: El objetivo de este estudio fue examinar el impacto del abuso sexual infantil (CSA) en las características clínicas y un final prematuro del tratamiento en anorexia nervosa (NA).

Método: Los participantes fueron 77 pacientes consecutivos con AN admitidos a una unidad de internamiento de desórdenes del comer. Los pacientes fueron evaluados en términos de los síntomas del desorden del comer, psicopatología general, e historia de CSA en el momento de la admisión al hospital.

Resultados: Treinta y siete pacientes (48%) reportaron una historia de CSA antes del inicio del desorden del comer. Los sujetos con una historia de CSA reportaron significativamente mayor comorbilidad psiquiátrica, incluyendo niveles más altos de depresión y ansiedad, autoestima más baja, más problemas interpersonales, y síntomas obsesivo-compulsivos más severos. Los pacientes con el subtipo de comer demasiado impulsivamente -purgarse de AN (AN-BP) eran significativamente más propensos a reportar una historia de CSA antes del inicio del desorden del comer comparado con pacientes con el tipo restrictivo (AN-R) de la enfermedad (65% de los pacientes AN-BP versus 37% de los pacientes AN-R; $p < .02$). Contrario a nuestras predicciones, los pacientes abusados no fueron significativamente más propensos a abandonar el tratamiento. Sin embargo, los pacientes del tipo de comer demasiado impulsivamente-purgarse (AN-BP) con una historia de CSA presentaron significa-

tivamente mayor tendencia a abandonar el tratamiento de manera prematura comparado con otros pacientes.

Conclusiones: De acuerdo con los hallazgos previos, los resultados presentes indican que la prevalencia de CSA es alta en personas que buscan tratamiento con internamiento por AN. Una historia de CSA estuvo asociada con mayores trastornos psiquiátricos y una tasa mayor de abandono del tratamiento en los pacientes del tipo comer demasiado impulsivamente-purgarse (AN-BP).